

# NOAA Climate Science & Services

## Monthly Climate Update



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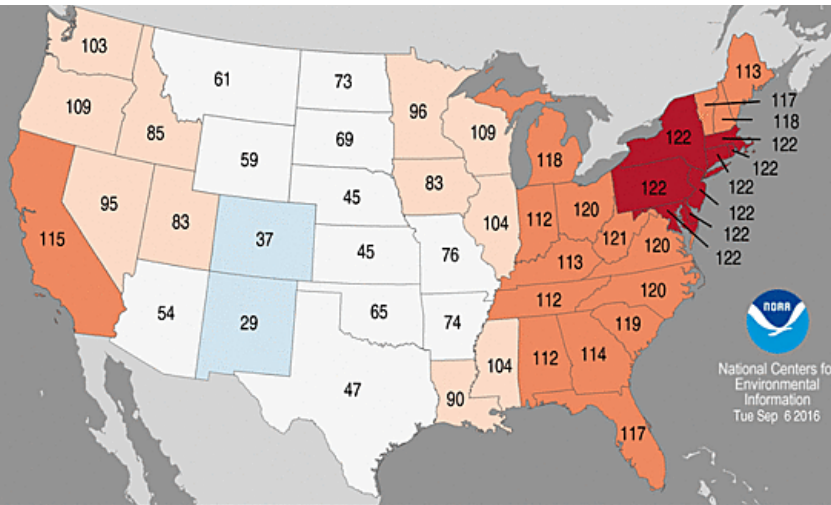
# Contiguous U.S. August 2016

Temperature: 73.6°F, +1.5°F, 17<sup>th</sup> warmest August on record

Precipitation: 3.47", +0.85", 2<sup>nd</sup> wettest August on record

## Statewide Temperature Ranks August 2016

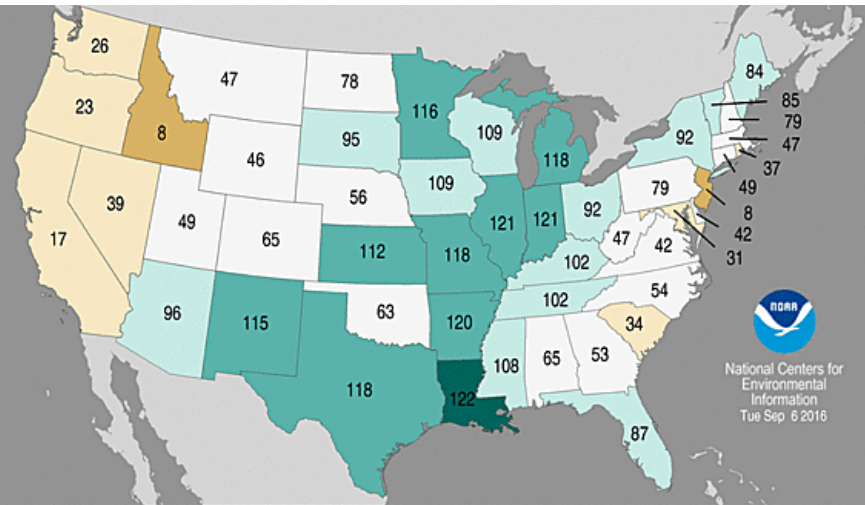
Period: 1895-2016 (122 years)



- West Coast, Midwest, Southeast, and Northeast were warmer than average.
  - CT, DE, MD, MA, NJ, NY, PA, and RI record warm.
- Near- to below-average temperatures were observed in the Rockies, Great Plains, and Southwest.

## Statewide Precipitation Ranks, August 2016

Period: 1895-2016 (122 years)

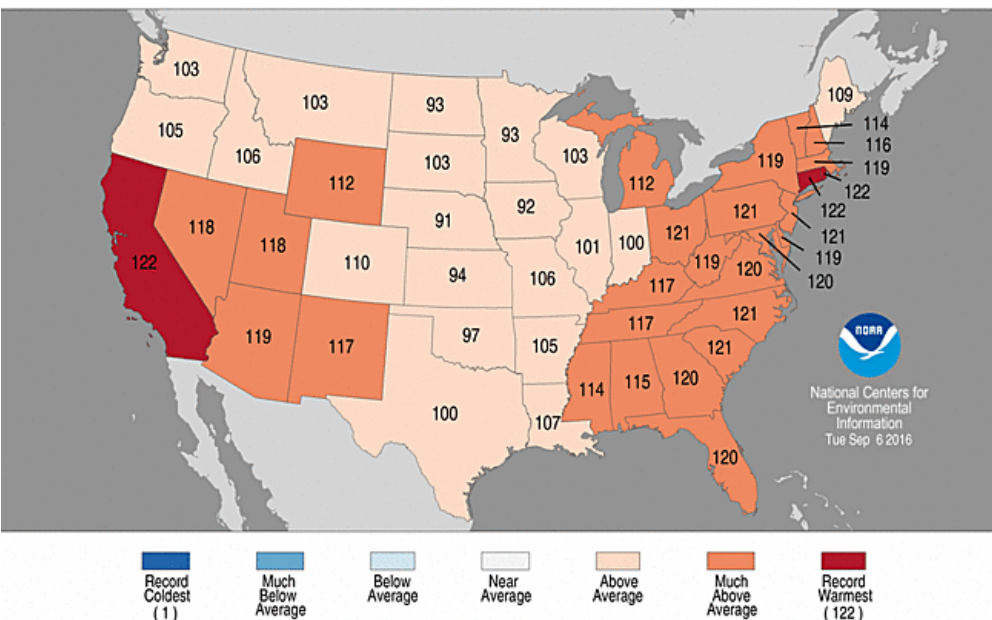


- Southwest, Southern Plains, Midwest, and Lower Mississippi Valley were wet.
  - Record wet with record flooding in Louisiana
- Drier than average in West and along parts of the East Coast
- Warm and dry conditions in the West created ideal wildfire conditions.

# Contiguous U.S. Summer 2016

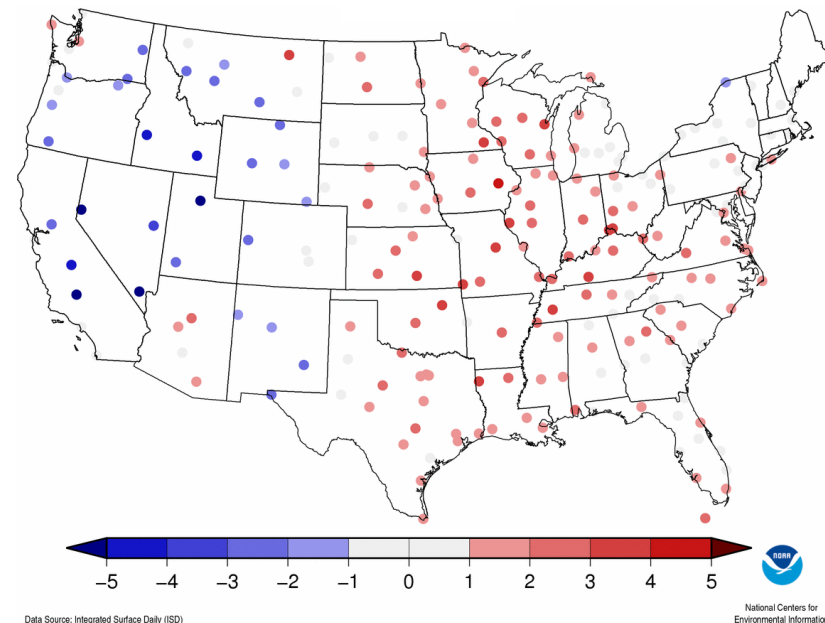
Temperature: 73.5°F, +2.1°F, 5th warmest June-August on record

Statewide Temperature Ranks Jun-Aug 2016  
Period: 1895-2016 (122 years)



- Southwest, Central Rockies, and much of the East were much warmer than average.
  - CA, CT, and RI were each record warm.
- Daytime temperatures were 1.8°F warmer than average – 10<sup>th</sup> warmest. Nighttime temperatures were 2.4° above average – record warm.

Dew point Departures from Average Jun-Aug 2016  
Base Period: 1981-2010

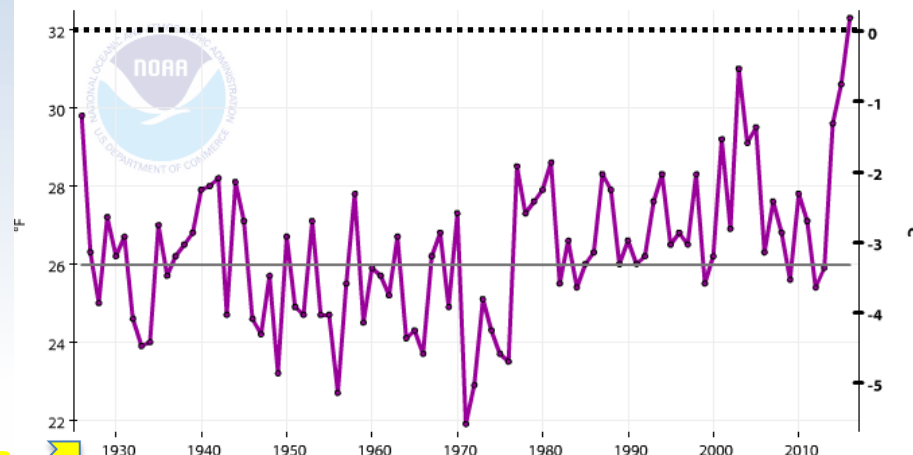


- Above-average dew points (measure of moisture) were observed for locations east of the Great Plains.
  - Increased heat index, nighttime temperatures, and precipitation
- Below-average dew points in the West were associated with ideal wildfire conditions during the season.

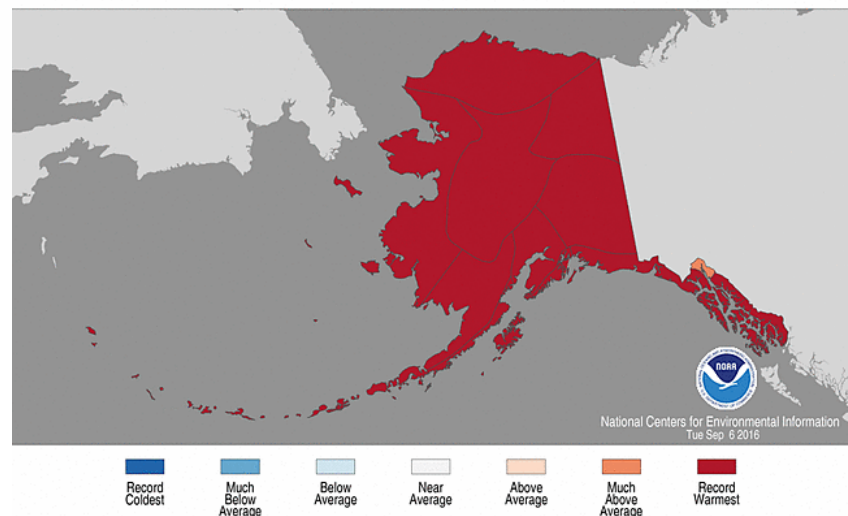
# Baked Alaska

Period	Avg Temp	Departure	Rank
<b>Aug 2016</b> 1-month period	53.3°F	+3.8°F	3 <sup>rd</sup> warmest
<b>Jun - Aug 2016</b> 3-month period	53.6°F	+3.1°F	2 <sup>nd</sup> warmest
<b>Mar - Aug 2016</b> 6-month period	42.8°F	+5.6°F	Record warm
<b>Jan - Aug 2016</b> 8-month period	36.4°F	+7.6°F	Record warm
<b>Dec 2015 - Aug 2016</b> 9-month period	33.3°F	+7.3°F	Record warm
<b>Sep 2015 - Aug 2016</b> 12-month period	32.3°F	+6.3°F	Record warm
<b>Mar 2015 - Aug 2016</b> 18-month period	35.1°F	+5.4°F	Record warm
<b>Sep 2014 - Aug 2016</b> 24-month period	31.4°F	+5.4°F	Record warm
<b>Sep 2013 - Aug 2016</b> 36-month period	30.8°F	+4.8°F	Record warm
<b>Sep 2012 - Aug 2016</b> 48-month period	29.6°F	+3.7°F	Record warm
<b>Sep 2011 - Aug 2016</b> 60-month period	28.8°F	+2.9°F	2 <sup>nd</sup> warmest

Alaska Average Temperature Sep-Aug  
1925-2016



Alaska Divisional Average Temperature Ranks  
September 2015–August 2016  
Period: 1925–2016



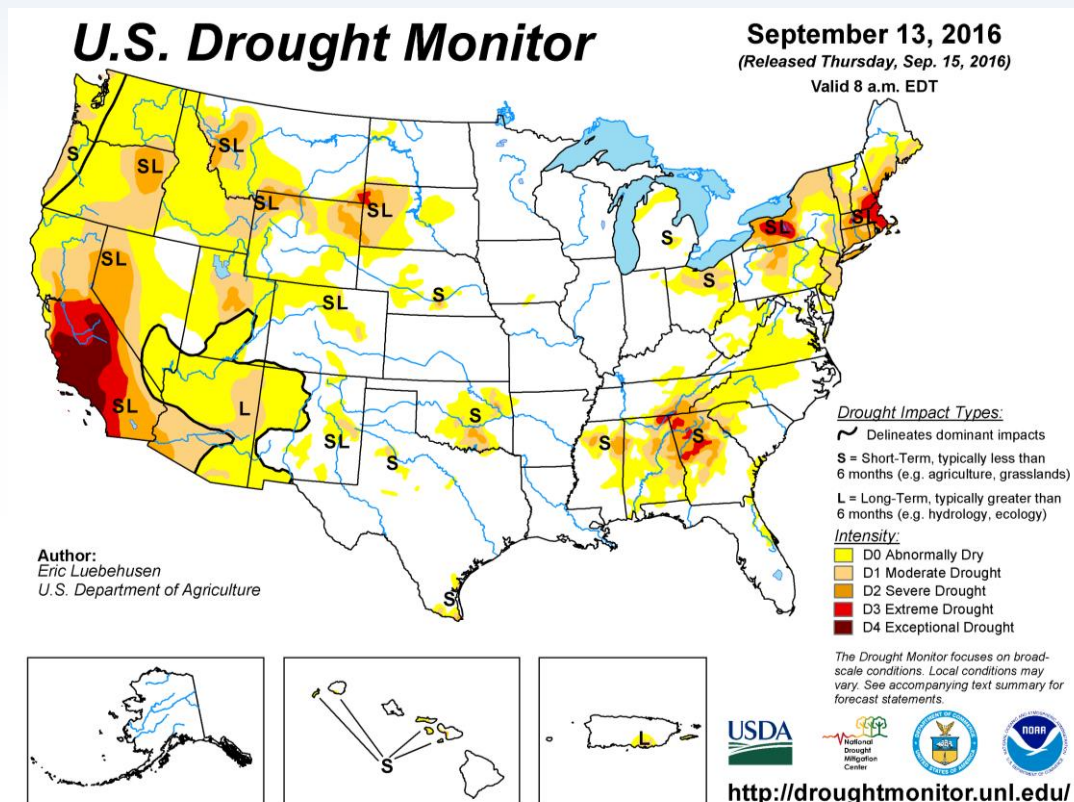


# Current U.S. Drought

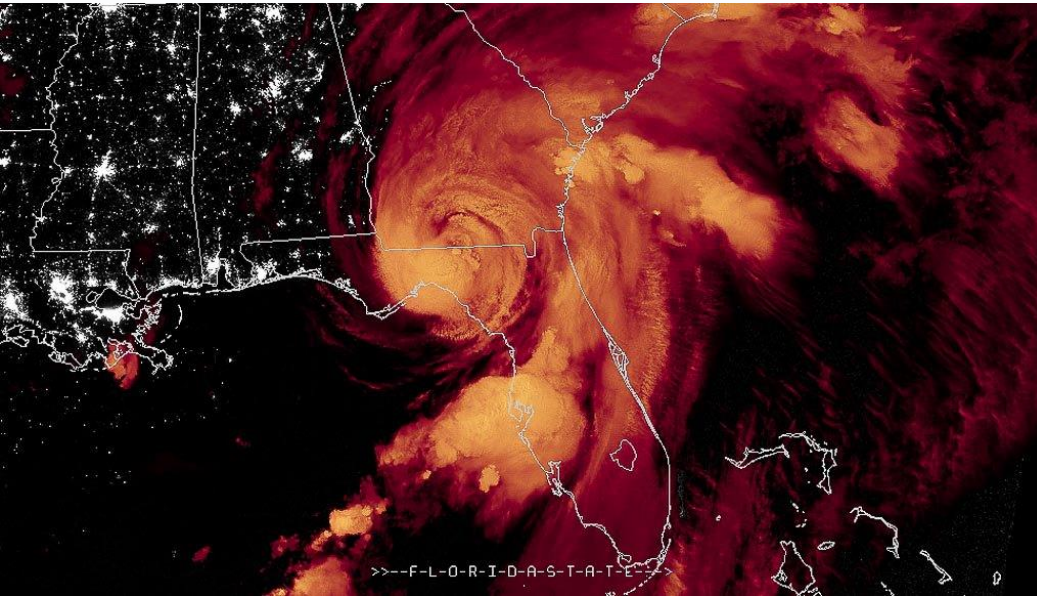
## 18.3% of Contiguous U.S. in Drought

(↓ 2.8 percentage points since early August)

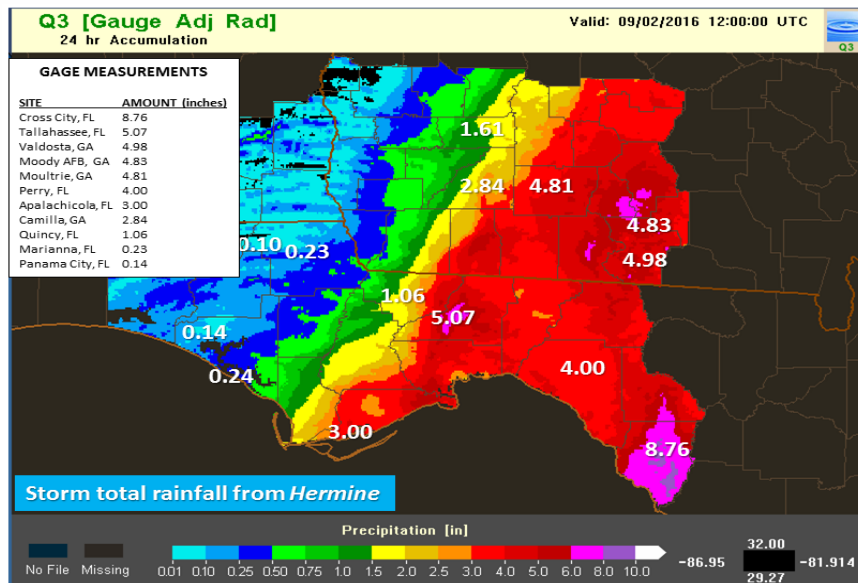
- Improvement: Northern and Southern Great Plains, Midwest, and parts of the Southeast
- Degradation: Northern and Central Rockies, Northeast, and Mid-Atlantic
- Outside CONUS: Improving drought for parts of Alaska, Hawaii, and Puerto Rico



# Hurricane Hermine

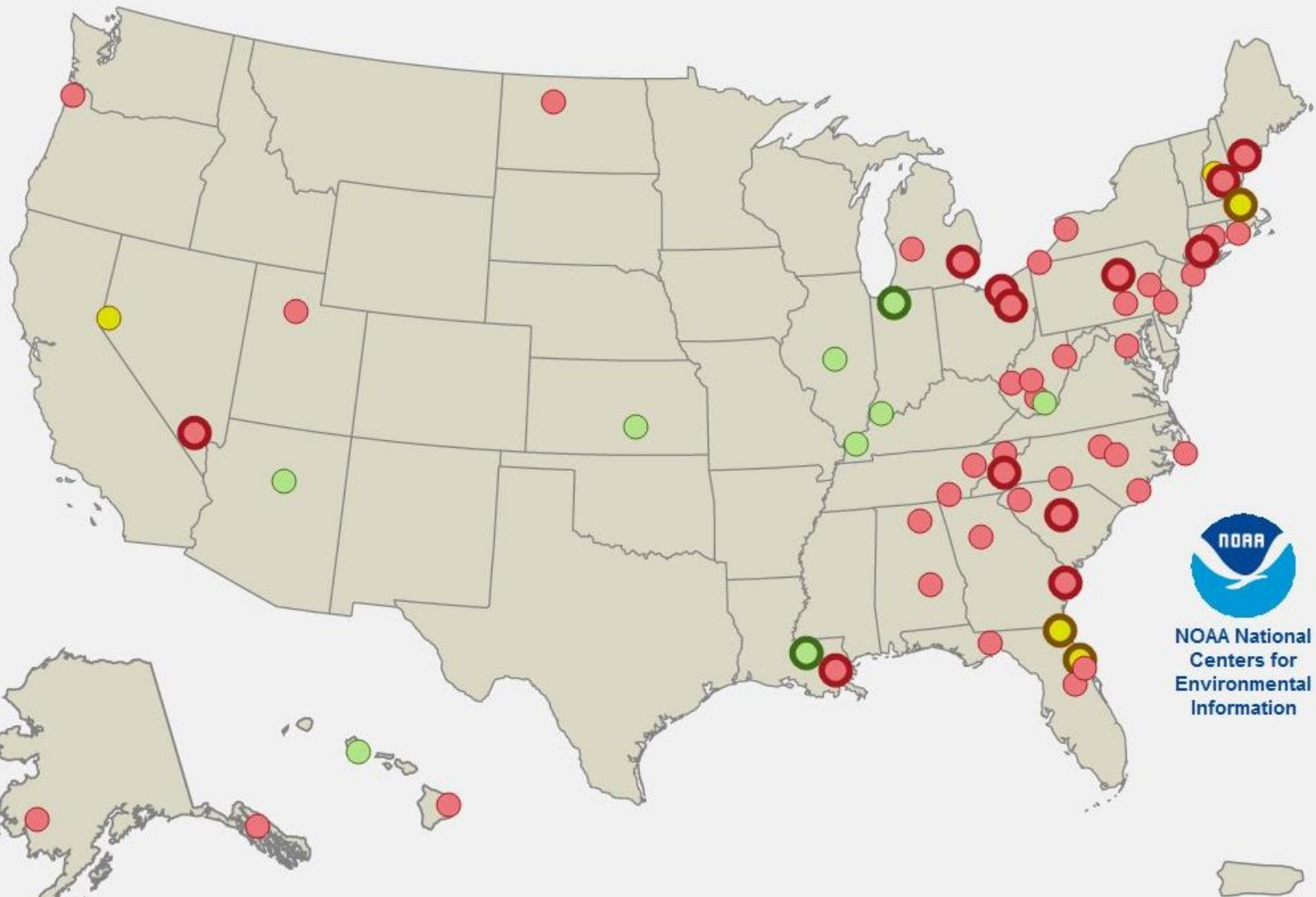


- 1st hurricane to make landfall along Apalachee Bay since 1966
- Weak cat. 1, winds 80 mph and 982 mb central pressure
- Storm surge of 4-6' in Wakulla County and 8-9' in Dixie
- 80% of Tallahassee customers lost power
- 13 tornado warnings, 3 confirmed in Taylor county



# Summer 2016 Temperature and Precipitation

## Records and near-records at selected stations



NOAA National  
Centers for  
Environmental  
Information

**Warmest**

2nd or 3rd Warmest

**Coldest**

2nd or 3rd Coldest

**Wettest**

2nd or 3rd Wettest

**Driest**

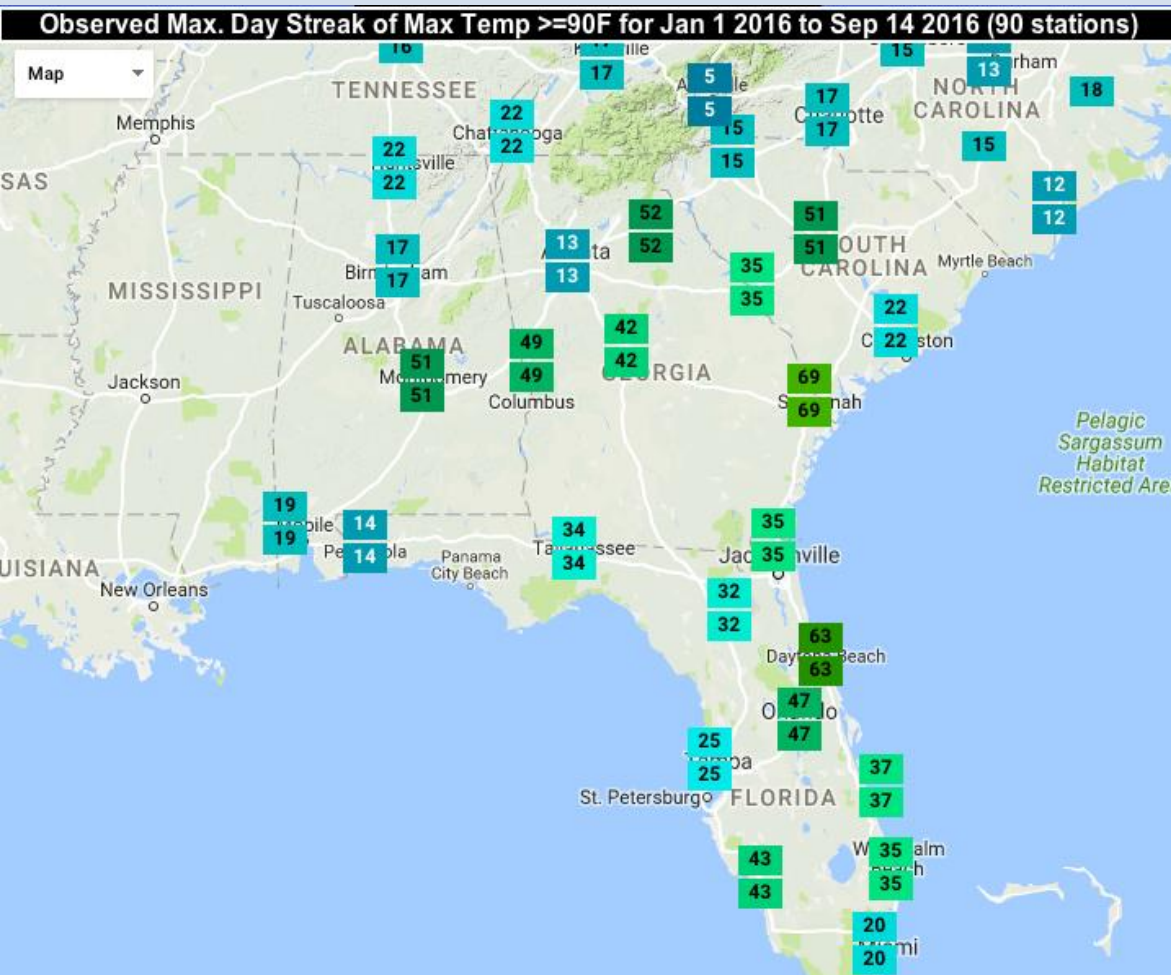
2nd or 3rd Driest

Based on non-threaded station data. Temperatures are averaged across 92 days. Stations have varying periods of record.



# Constant Summer Heat

## Consecutive days at or above 90 degrees

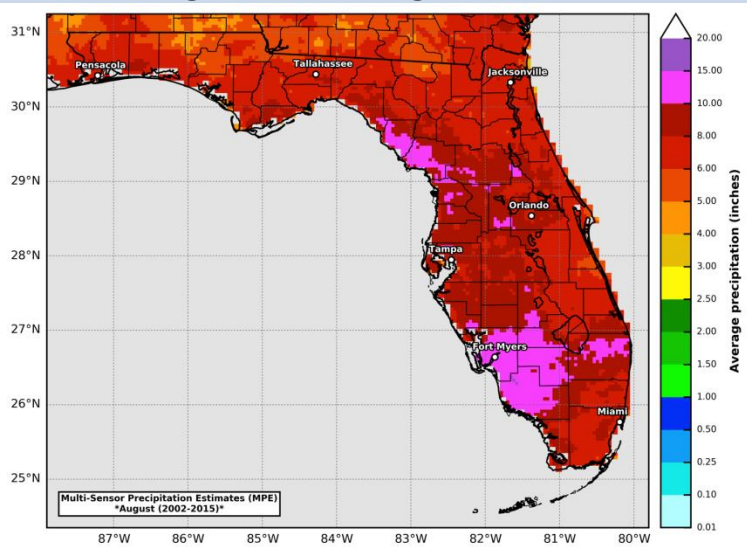


- Warmest July on record statewide, 3rd warmest summer (June – Aug.)
- 253 Tmax records broken or tied, 646 Tmin
- 74 consecutive days with minimum temperatures at or above 72 at Tallahassee (June 24 – Sept.5)

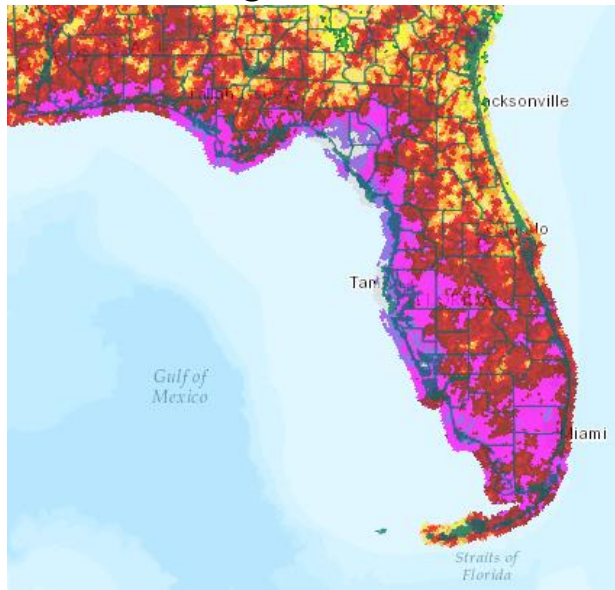


# Northeast Florida Dryness

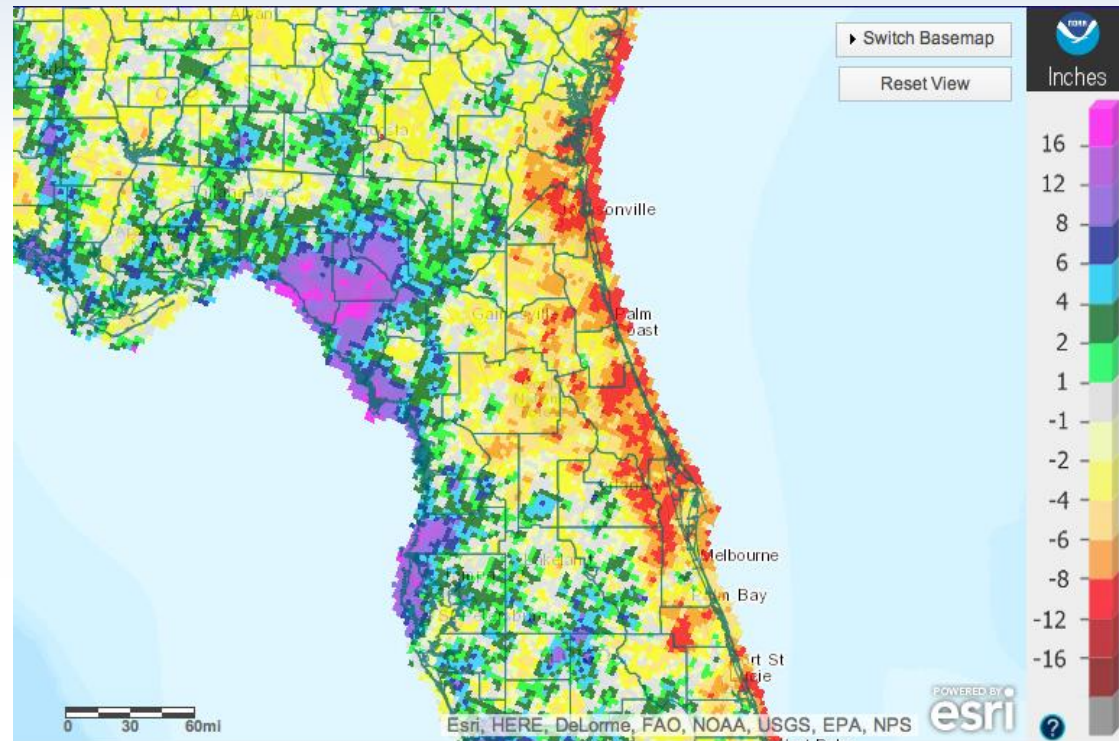
## August Average Rainfall



## August 2016

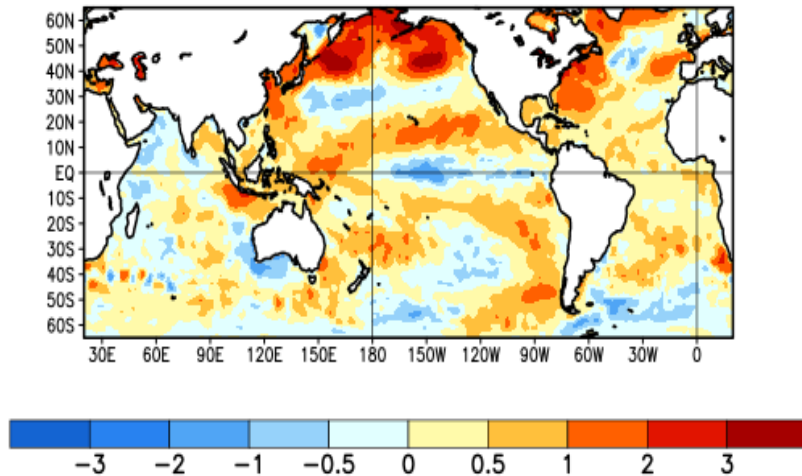


## 90 - day Deficits



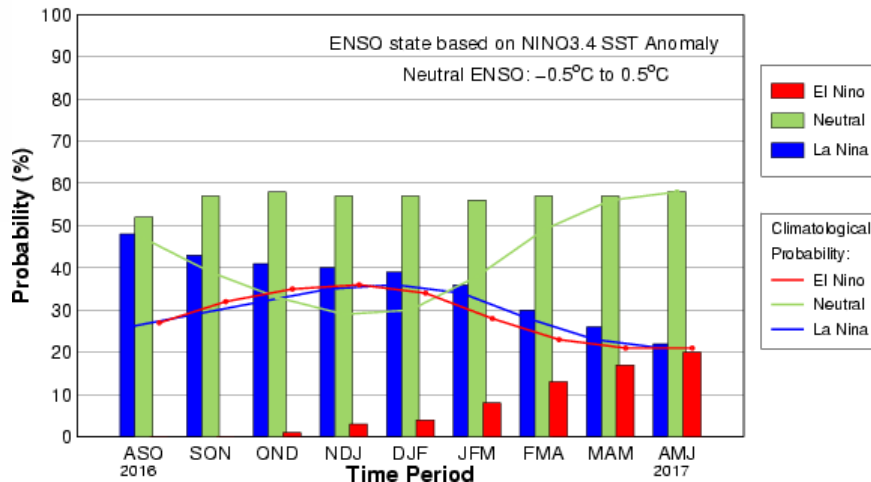
# Sea Surface Temperatures and ENSO

Average SST Anomalies  
14 AUG 2016 – 10 SEP 2016



- Sea surface temperatures
  - Below normal SSTs in equatorial Pacific
  - Above normal SSTs in the mid-latitudes of the Pacific
  - Above normal SSTs for much of the Atlantic for August.

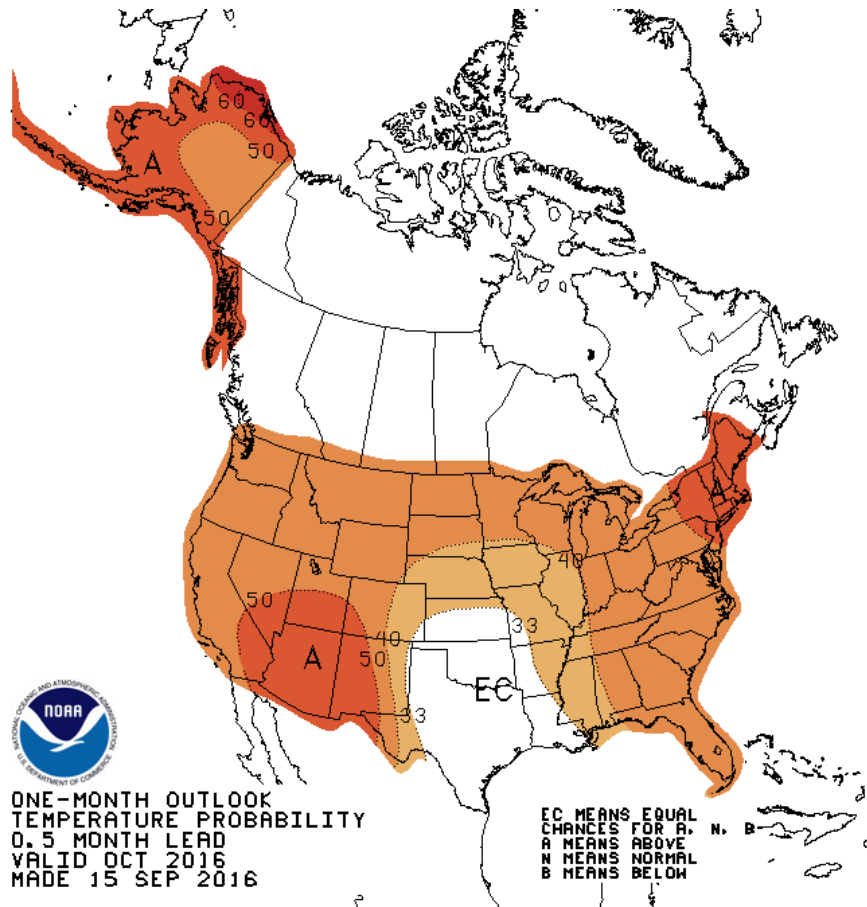
Early-Sep CPC/IRI Official Probabilistic ENSO Forecast



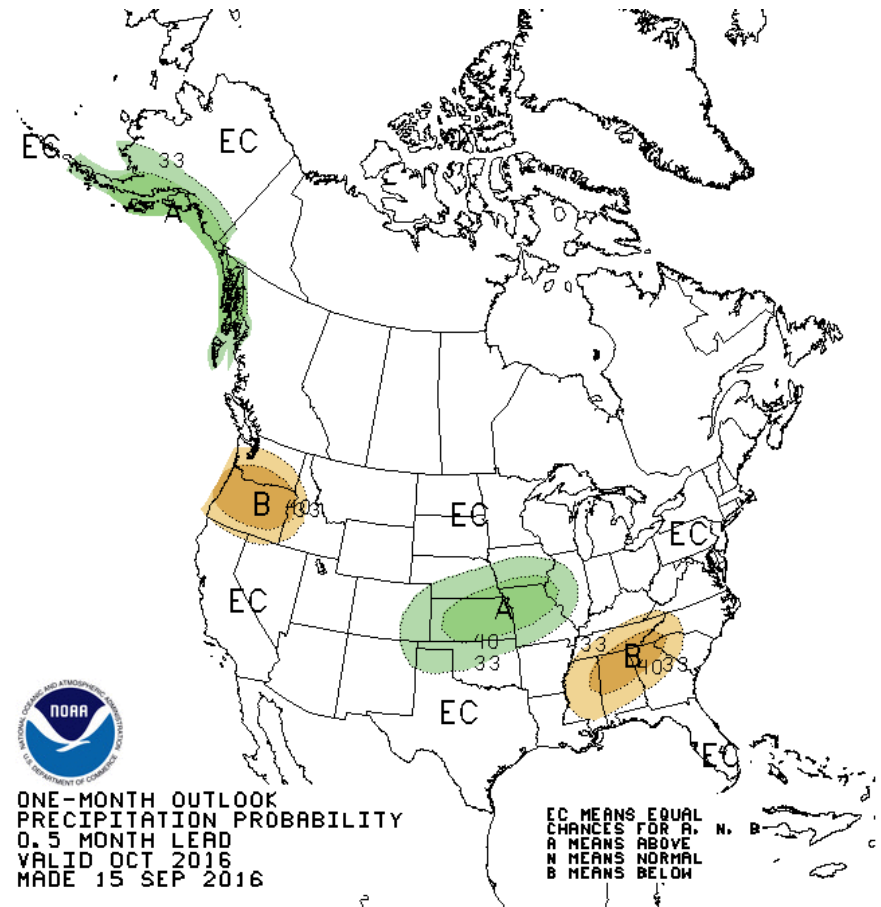
- ENSO forecast
  - ENSO-Neutral conditions observed
  - **ENSO Alert System: Not Active**
  - ENSO-Neutral conditions favored (55-60%) during the Northern Hemisphere fall and winter 2016-17.

# Monthly Forecast (October)

October Average  
Temperature Probability

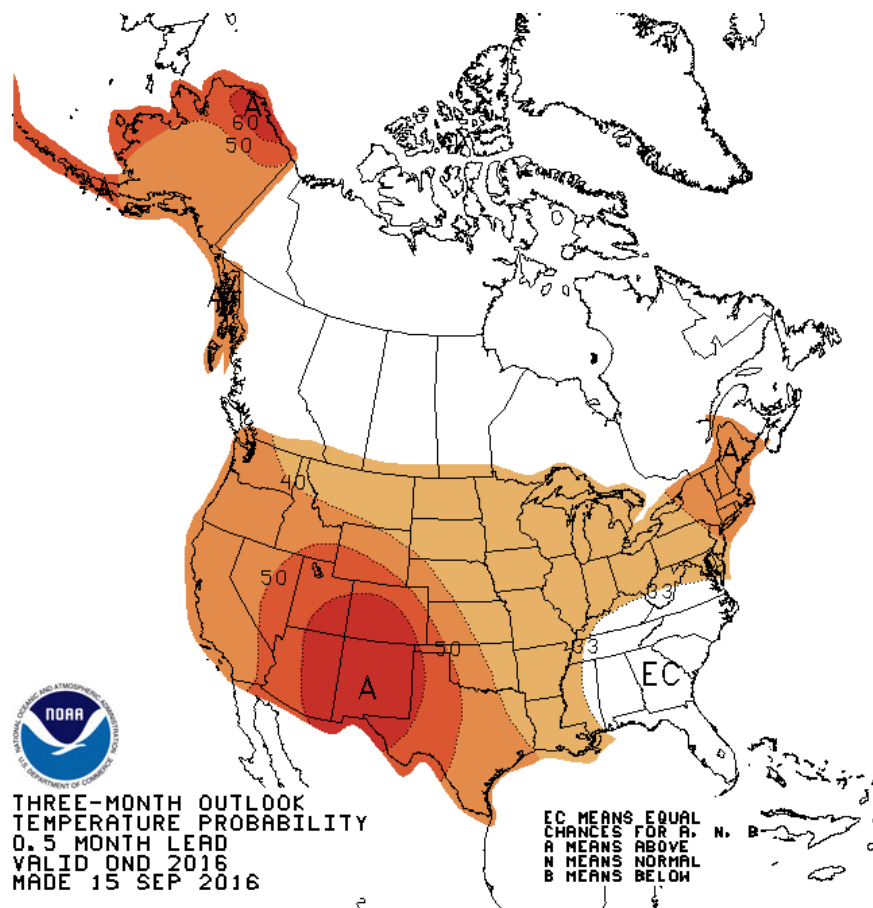


October Total  
Precipitation Probability

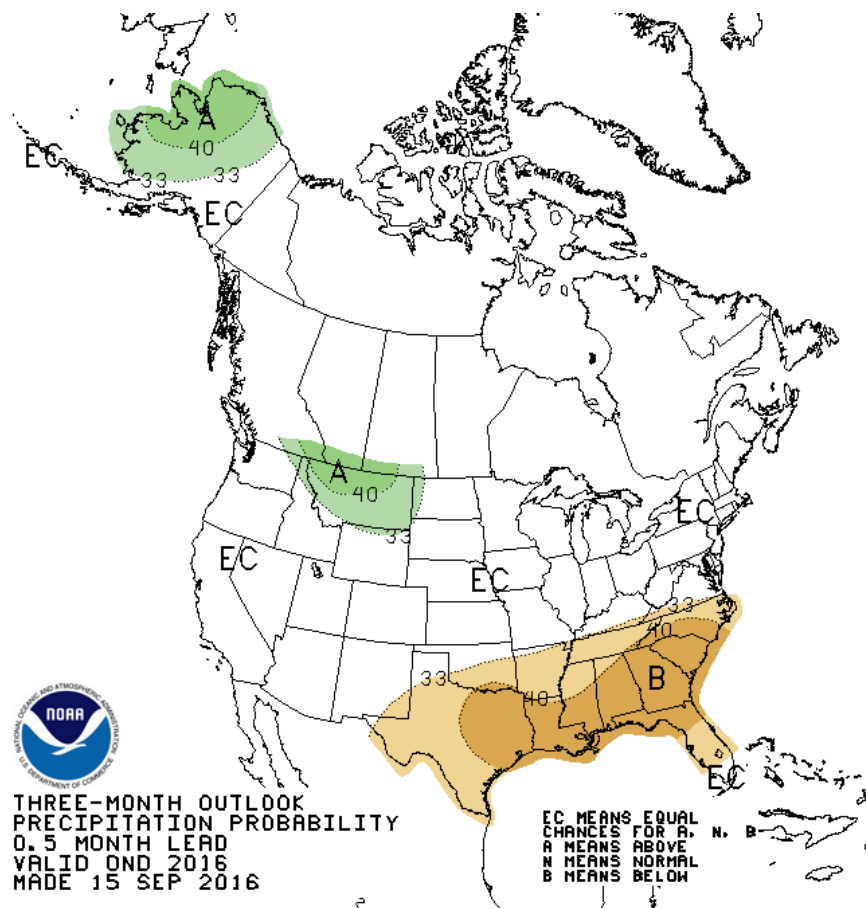


# Seasonal Forecast (Oct–Nov–Dec)

Oct–Nov–Dec Average  
Temperature Probability



Oct–Nov–Dec Total  
Precipitation Probability

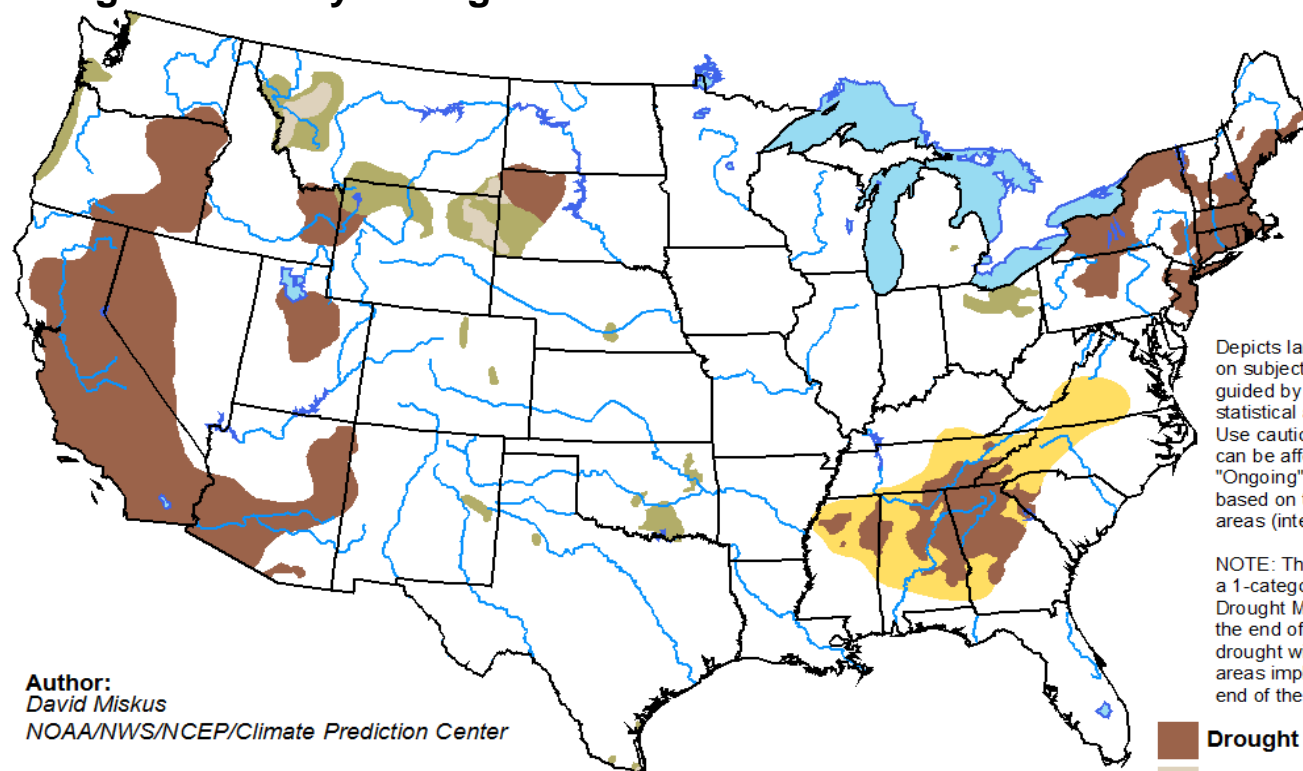




# U.S. Drought Outlook

## U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period





Valid for September 15 – December 31, 2016  
Released September 15, 2016

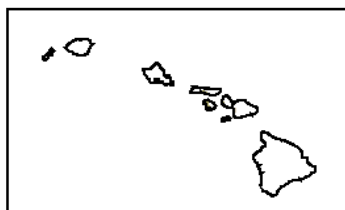
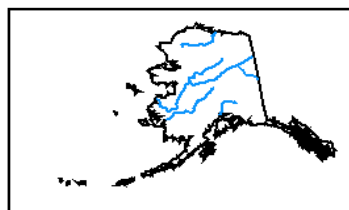


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Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZ73>

# For More Information



## TODAY'S PRESENTATION:

- <http://www.ncdc.noaa.gov/sotc/briefings>

## NOAA's National Centers for Environmental Information:

[www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

- Monthly climate reports (U.S. & Global): [www.ncdc.noaa.gov/sotc/](http://www.ncdc.noaa.gov/sotc/)
- Dates for upcoming reports: <http://www.ncdc.noaa.gov/monitoring-references/dyk/monthly-releases>

NOAA's Climate Prediction Center: [www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

Florida Office of the State Climatologist: <http://climatecenter.fsu.edu/>

U.S. Drought Monitor: <http://drought.gov>

Climate Portal: [www.climate.gov](http://www.climate.gov)

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